

Remarks

The claimed invention

The presently claimed invention includes a radiator having fins with a lower edge that has a rear notch and, in some cases, a front notch. As described in the specification at page 4, lines 13-15, the front and rear notches of a group of fins line up to form front and rear grooves. Figure 6 shows how the rear groove is used when the radiator is mounted on a wall (see page 5, line 28 – page 6, line 1). Figure 7 shows how a cover may be retained using the front groove (see page 6, lines 13-15). Claim 13 has been amended to properly describe its dependence from claim 12. Applicant submits that the scope of this claim is not changed by the amendment. Claims 12, 16, and 18 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter is introduced.

The prior art

Fieni discloses a heat exchanger, for example, a radiator for a motor vehicle. The heat exchanger has a plurality of fluid conduits and a plurality of spaced, parallel, plate-like fins extending transversely to the fluid conduits and attached thereto (Abstract). A mounting member clamps the ends of the fins together. Uglietto discloses a fin-type radiating system having an exposed rear flange for ease in installing (Abstract). Monroe discloses a heat exchange structure having an elongate substantially horizontal heat transfer member provided with fin members having angular sloping franges (Abstract).

Rejections under 35 U.S.C. § 102

Claims 12 and 16 stand rejected under 35 U.S.C. §102 as being anticipated by Fieni. The Examiner cites elements 13, 16a, 10 and 4 of Figure 3 of Fieni without explanation. In order for a reference to anticipate under 35 U.S.C §102, the reference must disclose “each and every limitation of a claimed invention.” Apple Computer, Inc. v. Articulate Systems, Inc., 234 F.3d 14 (Fed. Cir. 2000). While radiators such as those disclosed in Fieni are generally oriented with their long axis perpendicular to the ground, Fieni does not actually disclose which side of the disclosed device is the front or the bottom. Two edges of the device disclosed by Fieni have notches in them. These two sides are parallel to one another (see Figure 3 of Fieni). Applicant submits that elements 15 and 16, which fit into the notches described by Fieni at column 2, lines

7-9 are used to mount the fins (column 2, lines 39-41). Both claims 12 and 16 of the instant application recite “a lower edge comprising a rear notch for engaging a mounting system” and “a connecting edge extending between a top front edge and a top edge of the fin.” As a result, either rear edge 14 or front edge 9 of Fieni must correspond to the lower edge recited in claim 12 or claim 16 for Fieni to be able to anticipate claims 12 and 16 because these are the only edges including a notch. However, if this is so, Fieni cannot anticipate claims 12 and 16 because it would then fail to disclose the connecting edge recited by these claims. Applicant submits that the lower edge and the top edge recited in instant claims 12 and 16 are roughly opposite one another, with the front and connecting edges being disposed between the lower edge and the top edge. Figure 3 of Fieni shows that the edges of the fins that extend between the notched edges 9 and 14 are completely straight. They do not include a portion that is not “perpendicular to the top edge” as recited by claims 12 and 16, e.g., a portion that is not perpendicular to the edge opposite the lower edge that contains the notch. In contrast, claims 12 and 16 recite a notched lower edge, a top edge, and a front edge and connecting edge. The connecting edge extends between the front and top edges without being parallel to the front edge or perpendicular to the top edge. Indeed, aside from the notches for retaining elements 15 and 16, the fin described by Fieni is a perfect rectangle. Claims 13-15 depend from claim 12, and claims 17 and 19 depend from claim 16. Because Fieni fails to disclose all of the elements of claims 12 and 16, applicant submits that these claims and the claims dependent therefrom are allowable.

Rejections under 35 U.S.C. § 103

Claims 13, 14, 17, 18 and 19 stand rejected under 35 U.S.C. §103 as being unpatentable over Fieni in view of Uglietto. Claims 13 and 14 depend from claim 12. Claims 17 and 19 depend from claim 16. Applicant submits that claims 12 and 16 are patentable, as discussed above, and that the claims depending therefrom are also patentable. Applicant further submits that claim 18 is also patentable in view of Fieni and Uglietto, whether considered separately or in combination. Neither Fieni nor Uglietto discloses a fin having an aperture that includes a flange extending from at least a portion of its edge, as recited by claim 18 as amended. While both Fieni and Uglietto disclose fins having holes, neither of these references disclose that these holes should include a flange. Page 4, line 3, of the application discusses that a lip 12 may be used to reinforce the apertures in the fin. Neither Fieni nor Uglietto teaches the use of such a reinforcing

lip. As a result, applicant submits that claim 18 is patentable over Fieni and Uglietto, whether considered separately or together.

Claim 15 stands rejected under 35 U.S.C. §103 as being unpatentable over Fieni in view of Monroe. Applicant respectfully traverses. Furthermore, applicant submits that claim 15 depends from claim 12. As discussed above, applicant submits that claim 12 is patentable. As a result, applicant submits that claim 15 is patentable in view of either or both of Fieni or Monroe.

Objections to the Drawings

The drawings are objected to for failing to show a connecting edge. Applicant respectfully disagrees. Figure 1A discloses all the elements of claim 12, including a connecting edge. Figure 1A generally depicts a radiating fin. The radiating fin includes a lower edge 10 comprising a rear notch 8. The fin includes a connecting edge extending between the front edge, from which front flange 18 depends, and the top edge, from which top flange 20 depends. A portion of the connecting edge, diagonal 22, is neither parallel to the front edge nor perpendicular to the top edge.

Information Disclosure Statement

Applicant submits herewith a Supplemental Information Disclosure Statement enclosing a reference cited on the International Search Report for the corresponding international application.

A Petition for Extension of Time and the appropriate fee are enclosed herewith. Please charge any fees associated with this filing, or apply any credits, to our Deposit Account No. 03-1721.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Valarie B. Rosen', written over a horizontal line.

Valarie B. Rosen
Registration Number 45,698
Date: February 6, 2004

Choate, Hall & Stewart
Exchange Place
53 State Street
Boston, MA 02109
(617) 248-5000
3654543_1.DOC